

CLAIMS:

1. A device comprising:
 - a first and a second layer (11, 13) separated from each other; and
 - nanosized filamentary material (10) grown between said first and said second layer (11, 13).
- 5 2. A device according to claim 1, wherein the size and shape of the nanosized filamentary material (10) is determined by the size and shape of the second layer (13).
3. A device according to claim 1, wherein the first and second layers (11, 13) are
10 conductive.
4. A device according to claim 3, further comprising:
 - at least a bottom and a top contact (31, 32), said bottom contact (31) being connected to the first conductive layer (11) and said top contact (32) being connected to the
15 second conductive layer (13).
5. A device according to claim 1, wherein the device is an electronic device.
6. A device according to claim 5, wherein the device is a sensor.
- 20 7. An array comprising a plurality of devices according to claim 1.
8. A method for manufacturing nanosized filamentary material (10), the method comprising:
 - 25 - providing a stack (14) comprising at least a first catalyst layer (12) which is catalytically active with respect to the growth of nanosized filamentary material (10) and which is provided in between at least a first layer (11) and second layer (13), said first and second layer (11, 13) being inert with respect to the growth of nanosized filamentary material (10);

- growing nanosized filamentary material (10) in between said first and second layer (11, 13) whereby said first catalyst layer (12) is converted into a layer comprising the nanosized filamentary material (10).

5 9. A method according to claim 8, wherein growing nanosized filamentary material (10) in between said first and second layer (11, 13) is performed by a chemical vapor deposition (CVD) technique.

10 10. A method according to claim 8, wherein providing a stack (14) comprises:
- providing said first layer (11),
- providing said first catalyst layer (12) onto at least part of said first layer (11),
and
- providing said second layer (13) on top of at least part of said first catalyst layer (12).

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11. A method according to claim 10, wherein providing said first catalyst layer (12) onto at least part of said first layer (11) is performed by depositing a metal layer on at least part of said first layer (11).

20 12. A method according to claim 10, wherein providing said second layer (13) on top of at least part of said first catalyst layer (12) is performed by depositing a conductive layer.